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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,013	02/26/2004	Masaki Oomori	D-1580	6734

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EXAMINER
MORRISON, THOMAS A

ART UNIT	PAPER NUMBER
3653	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/786,013	OOMORI ET AL.	
	Examiner	Art Unit	
	Thomas A. Morrison	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) *7-13* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 14-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 February 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/26/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-6 and 14-18 in the reply filed on 03/08/2007 is acknowledged. Claims 7-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 03/08/2007.

Information Disclosure Statement

2. The information disclosure statement filed 2/26/2004 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered. In particular, there is no statement of relevance for any of the Japanese Publications cited in the 2/26/2004 IDS.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: (1) the control section 9, e.g., set forth on page 23, at lines 20, 22 and 25 of the specification of the instant application. This control section 9 is also mentioned on other pages of the instant application, e.g., at pages 24 and 25 of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to

the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3-6 and 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "close" in claim 3 is a relative term which renders the claim indefinite. The term "close" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Thus, claim 3 is indefinite.

Claims 4 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the structural

relationships in claims 4 and 16 between the interconnecting means, the sheet feed stacker, the feeder means and the sheet discharge stacker that allows the recited movements to occur. The only recited function in of the interconnecting means is to interconnect the sheet feed stacker and the sheet discharge stacker. How can the interconnecting means move a forward end of the sheet feed stacker in the sheet feeding direction away from the feeder means when the sheet discharge stacker is rotated? How can pivoting of the discharge stacker result in enlargement of a space in the sheet feeding direction between the sheet feed stacker and the sheet discharge stacker? There appear to be missing structural relationships between claimed elements that are needed to understand how the movements of the elements can be performed, as claimed.

Claim 4 recites "a sheet feeding direction". Claim 5, which depends from claim 4, then recites "a sheet feeding direction" in line 9 of claim 5. It is unclear if the recited "a sheet feeding direction" in claim 5 is the same or different from the previously recited "a sheet feeding direction" in claim 4.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the structural relationship between the rotational cam, the sheet feed stacker, the feed roller and the discharge stacker that allows the recited movements of such elements to be performed, as claimed. How can movement of the cam result in movement of the sheet feed

stacker away from the feed roller when the sheet discharge stacker is rotated? The structural relationships between the recited elements need to be further defined to understand how the recited movements of the element can be performed as claimed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 4 and 14-17, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,060,923 (Takimoto et al.).

Regarding claim 1, Figs. 1-16 show a document feeder (Fig. 3) to be disposed above a platen (8) of an image reading apparatus (Fig. 2), comprising:

a sheet feed stacker (including 24 and 26) disposed above the platen (8) for stacking an original,

transporting means (including 130) disposed above the platen (8) adjacent to the sheet feed stacker (including 24) for transporting the original from the sheet feed stacker (including 24) to a predetermined position on the platen (8),

a sheet discharge stacker (including 36) disposed above the sheet feed stacker (including 24) for storing the original transported from the transporting means (including 130),

a transporting guide (including 22 and 474) disposed between the sheet feed stacker (including 24) and the transporting means (including 130), and between the sheet discharge stacker (including 36) and the transporting means (including 130) for guiding the original, and

drive means (including 290) connected to the transporting means (including 130) for driving the same and capable of rotating in forward and reverse directions. See e.g., column 21, line 58 to column 22, line 11 for explanation of the reversible drive means (including 290).

Regarding claim 4, as best understood, Figs. 1-3 show feeder means (including 44) disposed adjacent to the sheet feed stacker (including 24) for feeding the original from the sheet feed stacker (including 24) to the transporting means (including 130), and interconnecting means (i.e., whatever frame structure(s) interconnect sheet feed stacker (including 24) and sheet discharge stacker (including 36)) interconnecting the sheet feed stacker (including 24) and the sheet discharge stacker (including 36), said sheet discharge stacker (including 36) being pivoted (Fig. 2) to enlarge a rear space in a sheet feeding direction between the sheet feed stacker (including 24) and the sheet discharge stacker (including 36) so that the interconnecting means moves a forward end of the sheet feed stacker in the sheet feeding direction away from the feeder means when the sheet discharge stacker is rotated. Regarding the recitation, "said sheet discharge stacker being pivoted to enlarge a rear space in a sheet feeding direction between the sheet feed stacker and the sheet discharge stacker **so that the interconnecting means moves a forward end of the sheet feed stacker in the**

sheet feeding direction away from the feeder means when the sheet discharge stacker is rotated", the bolded portion of this recitation has not been given patentable weight in view of MPEP, section 2114. Specifically, MPEP, section 2114 states that, "While features of an apparatus may be recited either structurally or functionally, claims< directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function." See MPEP, section 2114.

Regarding claim 14, Figs. 1-16 show an image reading apparatus (Fig. 2) comprising:

a platen (8) for placing an original thereon,

photoelectric converting means (see e.g., column 6, lines 7-22) disposed adjacent to the platen (8) for reading the original on the platen (8),

transporting means (including 130) disposed along the platen (8) for transporting the original to a predetermined position on the platen (8),

a sheet feed stacker (including 24) disposed adjacent to the transporting means (including 130) along the platen (8) for stacking the original,

a sheet discharge stacker (including 36) disposed above the sheet feed stacker (including 24) for storing the original transported from the transporting means (including 130), and

drive means (including 290) connected to the transporting means (including 130) for driving the same and capable of rotating in forward and reverse directions. See e.g.,

column 21, line 58 to column 22, line 11 for explanation of the reversible drive means (including 290).

Regarding claim 15, Figs. 1-16 show a device frame (16) for covering an entire portion of the platen (8), a transporting case frame (132) attached to the device frame (16) for covering a part of the platen (8) and supporting the transporting means (including 130), and a light-shielding cover member (52 or 308) attached to the device frame (16) at a portion other than a portion where the transporting means (including 130) is attached for blocking light from the platen (8), the sheet feed stacker (including 24) being disposed above the light-shielding cover member (52 or 308), the sheet discharge stacker (including 36) being disposed above the sheet feed stacker (including 24).

Regarding claim 16, as best understood, Figs. 1-16 show feeder means (including 44) disposed adjacent to the sheet feed stacker (including 24) for feeding the original from the sheet feed stacker (including 24) to the transporting means (including 130), and interconnecting means (i.e., whatever frame structure(s) interconnect sheet feed stacker (including 24) and sheet discharge stacker (including 36)) interconnecting the sheet feed stacker (including 24) and the sheet discharge stacker (including 36), said sheet discharge stacker (including 36) being pivoted (Fig. 2) to enlarge a rear space in a sheet feeding direction between the sheet feed stacker (including 24) and the sheet discharge stacker (including 36) so that the interconnecting means moves a forward end of the sheet feed stacker in the sheet feeding direction away from the feeder means when the sheet discharge stacker is rotated. Regarding the recitation,

"said sheet discharge stacker being pivoted to enlarge a rear space in a sheet feeding direction between the sheet feed stacker and the sheet discharge stacker **so that the interconnecting means moves a forward end of the sheet feed stacker in the sheet feeding direction away from the feeder means when the sheet discharge stacker is rotated**", the bolded portion of this recitation has not been given patentable weight in view of MPEP, section 2114. Specifically, MPEP, section 2114 states that, "While features of an apparatus may be recited either structurally or functionally, claims< directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function." See MPEP, section 2114.

Regarding the rejection of claim 17, different elements of U.S. Patent No. 5,060,923 (Takimoto et al.) are relied upon than those relied upon in the rejection of claim 14 above. Thus, all of the elements of claims 14, 16 and 17 are included in the rejection of claim 17 below. With regard to claim 17, Figs. 1-16 show an image reading apparatus (Fig. 2) comprising:

a platen (8) for placing an original thereon,

photoelectric converting means (see e.g., column 6, lines 7-22) disposed adjacent to the platen (8) for reading the original on the platen (8),

transporting means (including 130) disposed along the platen (8) for transporting the original to a predetermined position on the platen (8),

a sheet feed stacker (including 22 and 24) disposed adjacent to the transporting means (including 130) along the platen (8) for stacking the original,

a sheet discharge stacker (including 36) disposed above the sheet feed stacker (including 22 and 24) for storing the original transported from the transporting means (including 130), and

drive means (including 290) connected to the transporting means (including 130) for driving the same and capable of rotating in forward and reverse directions. See e.g., column 21, line 58 to column 22, line 11 for explanation of the reversible drive means (including 290).

Moreover, Figs. 1-16 show feeder means (including 44) disposed adjacent to the sheet feed stacker (including 22 and 24) for feeding the original from the sheet feed stacker (including 22 and 24) to the transporting means (including 130), and interconnecting means (i.e., whatever frame structure(s) interconnect sheet feed stacker (including 22 and 24) and sheet discharge stacker (including 36)) interconnecting the sheet feed stacker (including 22 and 24) and the sheet discharge stacker (including 36), said sheet discharge stacker (including 36) being pivoted (Fig. 2) to enlarge a rear space in a sheet feeding direction between the sheet feed stacker (including 22 and 24) and the sheet discharge stacker (including 36) so that the interconnecting means moves a forward end of the sheet feed stacker in the sheet feeding direction away from the feeder means when the sheet discharge stacker is rotated. Regarding the recitation, "said sheet discharge stacker being pivoted to enlarge a rear space in a sheet feeding direction between the sheet feed stacker and the sheet discharge stacker **so that the interconnecting means moves a forward end of the sheet feed stacker in the sheet feeding direction away from the feeder means when the sheet discharge**

stacker is rotated", the bolded portion of this recitation has not been given patentable weight in view of MPEP, section 2114. Specifically, MPEP, section 2114 states that, "While features of an apparatus may be recited either structurally or functionally, claims< directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function." See MPEP, section 2114.

In addition, Figs. 1-16 show that the feeder means (including 44) includes a feed roller (122 or 60) for drawing out an uppermost original on the sheet feed stacker (including 22 and 24) and a rotating member (including 124 and 126), and the sheet feed stacker (including 22 and 24) includes urging means (125) for pressing the forward end thereof against the rotating member (including 124 and 126). Thus, all of the limitations of claim 17 are met.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2, 3 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,060,923 (Takimoto et al.) as applied to claims 1 and 16 above, and further in view of U.S. Patent No. 4,412,738 (Ahern et al.) or U.S. Patent No. 4,345,751 (Holzhauser). The Takimoto et al. patent discloses most of the features of claims 2 and 16. With regard to claim 2, Figs. 1-16 of Takimoto et al.

disclose a pair of pulleys (186 and 194), an endless belt (204) placed between the pulleys (186 and 194), and a tension roller (242) for restricting a distance between the endless belt (204) and the platen (8), the transporting guide (including 22 and 474) being arranged for guiding the original to a part of the endless belt (204) located between one of the pulleys (e.g., 186) and the tension roller (242). With regard to claim 18, Figs. 1-16 of Takimoto et al. disclose that the transporting means (including 130) includes an endless belt (130) placed along the platen (8) for transferring the sheet. However, Takimoto et al. does not disclose vacuum means, as claimed.

The Ahern et al. and Holzhauser patents both disclose that it is well known to provide a document feeder to be disposed above a platen (e.g., reference numeral 12 in both Ahern et al. and Holzhauser) with vacuum means (See Abstracts in both Ahern et al. and Holzhauser) for the purpose of effectively tacking a document page to moving belts for movement to the platen (12). See e.g., Abstracts in both Ahern et al. and Holzhauser). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of Takimoto et al. with vacuum means for the purpose of effectively tacking a document page to the moving belt (including 130) of Takimoto et al. for movement to the platen (8) of Takimoto et al., as taught by the Abstracts of both Ahern et al. and Holzhauser. Thus, all of the limitations of claims 2 and 18 are met.

Regarding claim 3, Figs. 3, 13 and 15 of Takimoto et al. show that the transporting guide (including 22 and 474) further includes in a forward end portion thereof, an elastic film member (406) contacting the platen (8). Moreover, providing

vacuum means on the apparatus of Takamoto et al., in a manner as taught by Ahern et al. and Holzhauser, will result in the elastic film member (406) of Takimoto et al. being located close to a chamber of the vacuum means. In any event, it is noted that the term "close" is a relative term and no comparison for the term "close" is recited in claim 3, to understand how "close" the recited elastic film member has to be located to the chamber of the vacuum means. As such, it is the examiner's position that providing vacuum means on the apparatus of Takimoto et al., in a manner as taught by Ahern et al. or Holzhauser, will result in the film member (406) of Takimoto et al. being located "close" to (e.g., on the same machine as) the chamber of the vacuum means. Thus, all of the limitations of claim 3 are also met

Allowable Subject Matter

7. Claims 5 and 6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

05/18/2007

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